

Title (en)
SELF-PROPELLED CLEANING ROBOT

Title (de)
SELBSTANGETRIEBENER REINIGUNGSROBOTER

Title (fr)
ROBOT DE NETTOYAGE AUTOMOTEUR

Publication
EP 2898961 A4 20160406 (EN)

Application
EP 13867860 A 20131225

Priority
• JP 2012281531 A 20121225
• JP 2013007561 W 20131225

Abstract (en)
[origin: EP2898961A1] Provided is a self-propelled cleaning robot that can efficiently perform cleaning even on a flat surface having a gap or a step. A self-propelled cleaning robot (1) that self-travels on and cleans a flat surface (SF) of a structure, a groove (G) being formed in the flat surface (SF), the self-propelled cleaning robot (1) includes a robot main body (2) in which a self-propelled moving means (4) is provided and a guidance unit (40) that guides movement of the robot main body (2). At this point, the guidance unit (40) includes: a shaft member (43) that is provided so as to be detachably inserted in the groove (G) and a shaft member moving mechanism (45) that controls insertion and removal of the shaft member (43) with respect to the groove (G). The robot main body (2) is provided so as to be turnable about the shaft member (43) in a state in which the shaft member (43) of the guidance unit (40) is inserted in the groove.

IPC 8 full level
B08B 1/04 (2006.01); **A47L 9/28** (2006.01); **A47L 11/38** (2006.01); **E04G 23/02** (2006.01); **H01L 31/042** (2006.01)

CPC (source: EP US)
A47L 11/24 (2013.01 - EP US); **A47L 11/4072** (2013.01 - EP US); **B08B 1/143** (2024.01 - US); **B08B 1/32** (2024.01 - EP US); **E04G 23/002** (2013.01 - EP US); **F24S 40/20** (2018.04 - EP US); **G05D 1/0088** (2024.01 - US); **H02S 40/10** (2014.12 - EP US); **A47L 2201/00** (2013.01 - EP US); **B08B 1/12** (2024.01 - EP US); **B08B 5/04** (2013.01 - EP US); **Y02E 10/40** (2013.01 - EP US); **Y02E 10/50** (2013.01 - EP)

Citation (search report)
• [ID] JP 2004166968 A 20040617 - ZOJIRUSHI CORP
• [A] JP S5787562 A 19820601 - MITSUBISHI ELECTRIC CORP
• [A] KR 20100091056 A 20100818 - SONG WON JIN [KR]
• See references of WO 2014103291A1

Cited by
CN109465212A; CN106354134A; CN109442741A; CN106227215A; CN105680787A; CN108634873A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2898961 A1 20150729; EP 2898961 A4 20160406; EP 2898961 B1 20171025; IL 239620 A0 20150831; IL 239620 B 20190731; IN 2485DEN2015 A 20150911; JP 5686272 B2 20150318; JP WO2014103291 A1 20170112; SA 515360677 B1 20181227; US 10020774 B2 20180710; US 2015229265 A1 20150813; WO 2014103291 A1 20140703

DOCDB simple family (application)
EP 13867860 A 20131225; IL 23962015 A 20150624; IN 2485DEN2015 A 20150326; JP 2013007561 W 20131225; JP 2014521772 A 20131225; SA 515360677 A 20150625; US 201314430717 A 20131225